ACOUSTICAL TESTING LABORATORY

NASA Glenn Research Center
Acoustical Testing Laboratory

ATL Test Planning Agenda

The following agenda is meant as a general guideline for the topics that need to be discussed during the test planning meeting. The agenda of a particular test planning meeting may deviate from this as needed.

Test Number: _____ (i.e. ATL-01-04)
Date of Meeting: _____
Attendance sheet is attached.

Contact Information

1. Requesting Organization:_____
2. Contact Name & phone:_____
3. Funding:_____
4. List of Customer Personnel that will be at the test and their roles (see back page).
5. Who are the decision makers on this project (i.e. if something goes wrong during the test do we need to call the project engineer, lead engineer, etc)? (see back page)

Test Information

6. Test objective:_____

   _____

   _____

7. The test articles are classified as:
   a. _____ Qualification/Prototype
   b. _____ Protoflight
   c. _____ Flight
   d. _____ Developmental/Engineering Model
8. Test article description:_____

   _____

   _____

   a. Height_____
   b. Width_____
   c. Length_____
   d. Weight_____

9. What is the test article flying on?
   a. Shuttle (MSG Experiment) (EXPRESS Rack) (Other)_____
      _____
   b. ISS (MSG Experiment) (Express Rack) (Other)_____
      _____
   c. Other_____
      _____
10. Test requirements documents_____
    _____
11. Are electronic copies of the test requirements documents available for the ATL?_____
12. Type of test requested:
    a. _____ Sound Pressure Level
    b. _____ Sound Power Level
    c. _____ Sound Intensity
    d. _____ Vibration (acceleration/velocity)
13. Does the test article require a test fixture? _____
    a. Test fixture responsibility (ATL/Customer)_____
       _____
14. What is the typical operational cycle(s)?
    a. Time duration:_____
    b. How many separate events take place during this operational cycle?_____
    c. Are the noise sources of these separate events stationary (i.e. tonal, broad band)?_____
       _____
    d. Are the noise sources of these separate events nonstationary (i.e. chirps, impulses, short period transients)?_____
       _____
15. Is the test article available prior to the test for ATL personnel look at the test article and listen to it while operating?
16. Test matrix:_____
    a. Number of test conditions:_____
    b. Duration of each test condition:_____
    c. Can test conditions be repeated or are they a one-shot effort?
       _____
       _____
       Test configurations need to accurately replicate and/or conservatively bound the acoustic emissions of all on-orbit operational configurations.

17. What type of data is requested:
    a. _____ Octave band
    b. _____ 1/3rd octave band
    c. _____ Narrowband (FFT)
    d. _____ Other (please explain)_____

18. Are there tones or frequency bands of particular interest? _____
    _____
    _____

19. Preliminary number and type of transducers:_____
    _____

20. Preliminary transducer locations:_____
    _____

21. Are digital photos of the test article available for the ATL to include in its test plan?
    _____

22. Test schedule including test set up, testing, data review, and tear down.
    a. Test articles and support equipment will arrive at the ATL on (mm/dd/yy) _____ at _____ (am) (pm).
    b. Test articles and support equipment will be removed from the ATL by no later than (mm/dd/yy) _____ at _____ (am) (pm).
    c. Test days will start (time Customer arrives at ATL) at _____ (am) (pm) and conclude (testing stops and customer leaves the ATL) at _____ (am) (pm).

ESD, Contamination Control, Transportation, and Handling

23. Are there special handling requirements? _____
    _____

24. How will the test articles be transported to and from the ATL and who will be responsible for transporting? _____
    _____

25. Who will be responsible for receiving the test article if the Customer will not be present at the ATL when it arrives? _____
    _____

26. Will the test article require storage before or after the test? _____
    _____

27. How will the test articles be installed in the ATL Test Chamber and who will be installing it?
    _____
    _____
    a. Can the test article be hand carried? _____
    b. Will it require a tow motor? _____
    c. Will it require being brought in through the ceiling opening? _____
    d. Will procedures for Transportation, Lifting, and Integration of the test articles and support equipment be required? _____
       _____

28. If applicable, Customer will develop a process for documenting personnel access to the test article or support equipment (for example, personnel must have the approval of the test conductor prior to accessing the test article).

29. Test articles (require) (do not require) following ESD protection procedures.

30. What are the ESD protection policies the Customer has been following (if applicable)?

    _____

    _____

    _____

    a. _____ The Customer's ESD protection policies are more stringent than the ATL's, the Customer's policies will be followed.

    b. _____ The Customer's ESD protection policies are less stringent than the ATL's, the ATL's policies will be followed.

31. Test articles (require) (do not require) following contamination control procedures.

32. What are the contamination control procedures the Customer has been following (if applicable)?

    _____

    _____

    _____

    a. _____ The Customer's contamination control policies are more stringent than the ATL's, the Customer's policies will be followed.

    b. _____ The Customer's contamination control policies are less stringent than the ATL's, the ATL's policies will be followed.

Safety

33. Safety considerations:

    a. _____ High voltage:_____

    b. _____ Combustibles:_____

    c. _____ Pressure:_____

    d. _____ Moving members:_____

    e. _____ Chemicals:_____

    f. _____ Laser light:_____

    g. _____ Rotating Members:_____

    h. _____ Cryogenics:_____

    i. _____ Heat:_____

    j. _____ Hazardous Gases:_____

    k. _____ Vacuum:_____

    l. _____ Radiation:_____

34. If applicable, an Abort Procedure will be baselined, reviewed, and agreed upon by ATL, Customer, and Quality._____

35. Safety permits required for performing the test the test article? _____

    _____

Support Equipment

36. Customer's support equipment: _____

_____

_____

a. What are the electrical, power, air, water, etc support equipment requirements?
_____

_____

b. What consumables (i.e. compressed gas bottles, batteries, fuel) will be required?
_____

_____

c. Can the Customer's support equipment run off of the 120 VAC outlets through out the control room and test chamber? _____

_____

d. Will the support cables and hoses allow the test article to be located near the center of the test chamber (nominally need 25 foot length cables for support equipment located in the ATL control room)?
_____

_____

e. How much table space and chairs will the Customer require? ____

_____

37. Will the overhead crane be needed for this test?_____

38. ATL Facilities:

a. Test chamber configuration (anechoic / hemi-anechoic).

b. Data acquisition system(s) that will be used:_____

_____

_____

c. Instrumentation and equipment that will be used:_____

_____

d. Control room configuration: _____

e. ATL has sufficient table space, chairs, and electrical power have been provided for ATL, Customer, and Quality Assurance
Personnel._____

_____

f. Customer will be assigned a dedicated phone and unique phone number (3-2065) if required _____

g. Does the ATL need to supply ESD protection and or contamination control equipment for the Customer (i.e. smocks, grounding wrist straps, etc)?

Quality Assurance

39. Will Quality Assurance personnel be present during the test?_____

    _____

40. Names and roles of the assigned Quality Assurance personnel:

    _____

    _____

    _____

41. Will special documentation required for Quality Assurance? _____

    _____

Reporting

42. ATL test plan needs to be submitted to the following organizations for review and or approval:

    _____

    _____

43. Will the Customer's test plan be available to the ATL prior to the test? ____

44. ATL test reporting method:

    a. _____ Detailed engineering report.

    b. _____ Data Only

45. Is an estimated two week turnaround time on the test report acceptable? (Yes/No)_____